WE CLAIM:

1. An apparatus for directing a laser beam toward a target location on a workpiece in response to a target location coordinate position command, comprising:

a positioner positioning the workpiece and the laser beam relative to one another in response to the coordinate position command;

first and second position sensors coupled to the positioner for producing first and second position signals indicative of an actual coordinate position of the positioner;

first and second summing junctions comparing the coordinate position command and the first and second position signals and producing first and second error signals indicative of a difference between the coordinate position command and the actual coordinate position;

a first steering mirror controller coupled to the first error signal for producing a first position correction signal; and

a two-axis steering mirror responsive to the first position correction signal for receiving the laser beam and deflecting the laser beam toward the target location on the workpiece.

2. The apparatus of claim 1 further including a second steering mirror controller coupled to the second error signal for producing a second position correction signal, and in which the two-axis steering mirror is further responsive to the second position correction signal for receiving the laser beam and deflecting the laser beam toward the target location on the workpiece.

3. The apparatus of claim 1 in which the coordinate position command includes information for positioning the positioner to respective X-axis and Y-axis orthogonal coordinate locations.

4. The apparatus of claim 1 in which the first and second error signals conform to a first coordinate system and the two-axis steering mirror is responsive to a second coordinate system, and in which the apparatus further includes a coordinate transform generator for converting at least one of the first and second error signals to the second coordinate system.

5. The apparatus of claim 1 in which the apparatus further includes a second steering mirror controller and in which the target location coordinate position command further includes mirror positioning information, the first and second steering mirror controllers positioning the two-axis steering mirror in response to the mirror positioning information and at least the first position correction signal.

6. The apparatus of claim 1 in which the two-axis steering mirror includes a pivot point, and the apparatus further includes a focusing lens having an entrance pupil, and in which the focusing lens is disposed between the two-axis steering mirror and the workpiece such that the entrance pupil is at or near the pivot point.

7. The apparatus of claim 1 in which the two-axis steering mirror is positioned by at least one piezo electric actuator.

8. The apparatus of claim 1 in which the two-axis steering mirror is positioned by at least one voice coil actuator.

9. The apparatus of claim 1 in which the positioner scans the workpiece and the laser beam relative to one another in a second axis direction in response to a series of the coordinate position commands while the two-axis steering mirror is responsive to a series of the first position correction signals for receiving the laser beam and deflecting the laser beam toward a set of the target locations on the workpiece.

10. The apparatus of claim 1 further including a second steering mirror controller coupled to the second error signal for producing a second position correction signal, in which the two-axis steering mirror is responsive to the first and second position correction signals for receiving the laser beam and deflecting the laser beam toward the target location on the workpiece.

11. The apparatus of claim 1 in which the workpiece includes an integrated memory circuit and in which the target location includes a severable link for removing a defective memory cell.

12. The apparatus of claim 1 in which the workpiece includes an electronic circuit element that is trimmed to a predetermined performance characteristic by the laser beam.

13. The apparatus of claim 1 in which the positioner includes stages that are arranged in a stacked configuration.

14. The apparatus of claim 1 in which the positioner includes stages that are arranged in a split-axis configuration.

15. The apparatus of claim 1 in which the positioner includes a planar positioning stage.

16. A method for directing a laser beam toward a target location on a workpiece in response to a target location coordinate position command, comprising:

positioning the workpiece and the laser beam relative to one another in response to the coordinate position command;

sensing an actual coordinate position of the workpiece relative to the coordinate position command;

producing first and second error signals indicative of a difference between the coordinate position command and the actual coordinate position;

producing at least a first position correction signal in response to one of the first and second error signals;

positioning a two-axis steering mirror in response to at least the first position correction signal; and

deflecting the laser beam toward the target location on the workpiece.

17. The method of claim 16 further including producing a second position correction signal in response to the other one of the first and second error signals, and positioning the two-axis steering mirror in response to the first and second position correction signals.

18. The method of claim 16 in which the coordinate position command includes X-axis and Y-axis orthogonal coordinate locations.

19. The method of claim 16 in which the first and second error signals conform to a first coordinate system and the a two-axis steering mirror is responsive to a second coordinate system, and in which the method further includes transforming at least one of the first and second error signals into the second coordinate system.

20. The method of claim 16 in which the target location coordinate position command includes mirror positioning information, and the method further includes positioning the two-axis steering mirror in response to the mirror positioning information and at least the first position correction signal.

21. The method of claim 16 in which the two-axis steering mirror includes a pivot point, and the method further includes providing a focusing lens having an entrance pupil, and locating the focusing lens between the two-axis steering mirror and the workpiece such that the entrance pupil is at or near the pivot point.

22. The method of claim 16 further including scanning the workpiece and the laser beam relative to one another in a second axis direction in response to a series of the coordinate position commands and moving the two-axis steering mirror in response to a series of the first position correction signals.

23. The method of claim 16 further including producing a second position correction signal in response to the second error signal, and positioning the two-axis steering mirror in response to the first and second position correction signals.

24. A method for directing a laser beam toward a target location on a workpiece in response to a target location coordinate position command, comprising:

positioning the workpiece and the laser beam relative to one another in response to the coordinate position command;

producing first and second position signals indicative of an actual coordinate position of the positioner;

comparing the coordinate position command and the first and second position signals to produce first and second error signals indicative of a difference between the coordinate position command and the actual coordinate position;

producing from the first error signal a first position correction signal;

providing a first steering mirror having a pivot point;

locating a focusing lens having an entrance pupil between the first steering mirror and the workpiece such that the entrance pupil is located at or near the pivot point; and

actuating the first steering mirror in response to the first position correction signal for deflecting the laser beam toward the target location on the workpiece.

25. The method of claim 24 in which the workpiece is a semiconductor wafer undergoing a link processing application and the method further includes:

producing from the second error signal a second position correction signal;

providing a second steering mirror; and

actuating the second steering mirror in response to the second position correction signal for deflecting the laser beam about the pivot point of the first steering mirror in sufficiently small deflection amounts to maintain a laser beam spot size and shape suitable for use in the semiconductor link processing application.

26. The method of claim 25 in which at least one of the first and second steering mirrors includes a galvanometer actuator.

27. The method of claim 25 in which at least one of the first and second steering mirrors is a single-axis steering mirror.